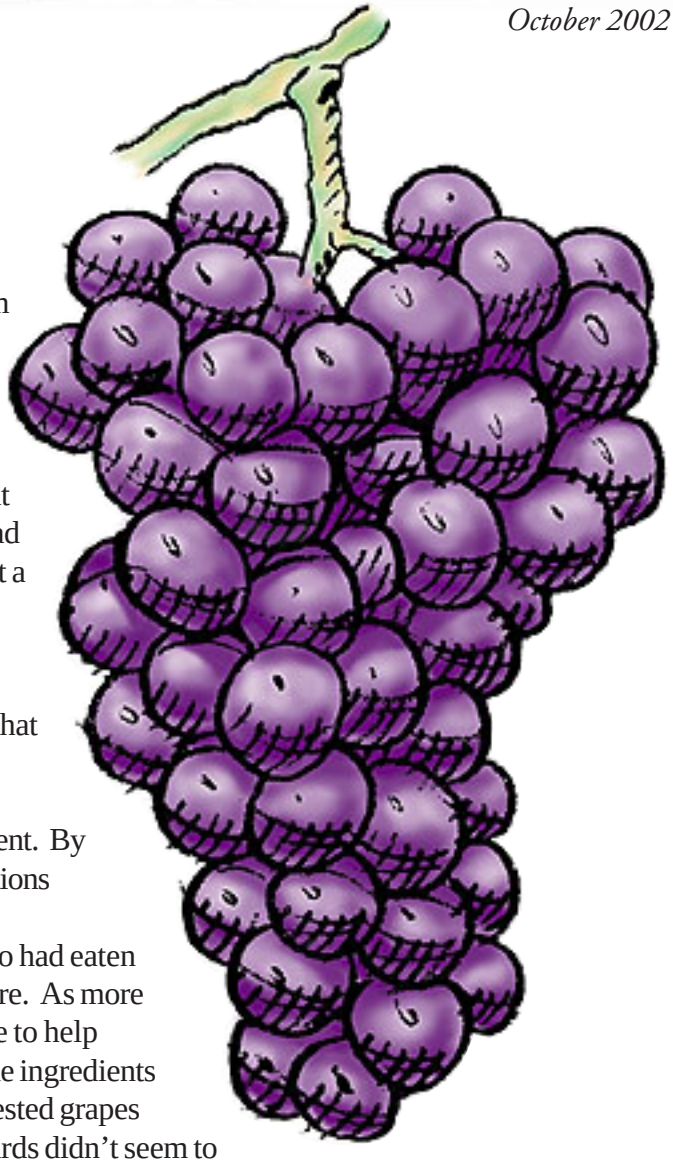
Canine Bulletin

Nebraska Task Force - 1 *October 2002*

The Wrath of Grapes

By Charlotte Means, D.V.M.
Submitted by: Lynne Engelbert



Magoo was a big, playful Labrador retriever who often got himself into some sticky situations. Usually, his escapades were harmless. But one day, he managed to snag a box of raisins from the pantry and ended up eating an entire pound of the sweet treats. Other than being exasperated by Majoo's behavior, his guardians didn't think much about it. They knew that lots of people shared grapes with their dogs and often used raisins as training rewards. So it hardly seemed the kind of emergency that required a call to the veterinarian. In fact, If Magoo's parents had called the ASPCA's Animal Poison Control Center (APCC) just a few years ago, they would have been told not to worry about it.

Through the Grapvine

Enter the APCC AnTox™ databse, a computerized system that contains nearly 5000,000 animal-related medical conditions and that enables veterinarians to quickly identify toxic-substance exposures, recognize clinical signs and administer proper treatment. By tracking cases in this registry, similarities in animal medical conditions nationwide can be logged and syndromes can be identified.

Around 1989, the APCC began noticing a trend in dogs who had eaten grapes or raisins: Nearly all developed acute renal (kidney) failure. As more cases were reported, enough data was generated in the database to help veterinarians identify and treat dogs at risk. In all of the cases, the ingredients for potential acute renal failure were the same. Whether the ingested grapes were purchases fresh from grocery stores or grown in private yards didn't seem to matter, nor did the brand eaten. And the ingested amounts varied considerably, from over a pound of grapes to as little as a single serving of raisins. The cases weren't from any specific region, but instead came from across the United States.

The database showed that dogs who ate the grapes and raisins typically vomited within a few hours of ingestion. Most of the time, partially digested grapes and raisins could be seen in the vomit, fecal material, or both. At this point, some dogs would stop eating (anorexia), and develop diarrhea. The dogs often became quiet and lethargic, and showed signs of abdominal pain. These clinical signs lasted for several days – sometimes even weeks.

When medical care was sought, blood chemistry panels showed consistent patterns. Hypercalcemia (elevated blood calcium levels) was frequently present, as well as elevated levels of blood urea nitrogen, creatinine and phosphorous (substances that reflect kidney function). These chemistries began to increase anywhere from 24 hours ro several days after the dogs ate the fruit. As the kidney damage developed, the dogs would produce little urine. When they could no longer produce urine, death occurred. In some cases, dogs who received timely veterinary care sill had to be euthanized.

Grapes continued on page 3

Type II Canine Readiness Evaluation

Submitted by: Dewey Perks

Virginia Task Force 1, sponsored by the Fairfax County Fire and Rescue Department, will conduct a Type II Canine Readiness Evaluation 22 - 24 November 2002 at the Department's Fire and Rescue Training Academy. While this evaluation is open to all task forces within the FEMA National Urban Search and Rescue Response System, canine teams from Division C will receive acceptance priority.

The candidate pool for this evaluation will be limited to no more than 16-teams, including those from Virginia Task Force 1. If that number do not apply, Virginia Task Force 1 will consider accepting teams from non-FEMA search and rescue resources to enhance national readiness. There is no opportunity for Shadow Evaluators during this evaluation. Acceptance for this process is on a "first come-first served basis". There is no participation fee for this evaluation.

Applications for this process are available on the FEMA web page in the Canine Readiness Evaluation Standard and once completed are to be faxed to Virginia Task Force 1, attention: Sonja Heritage, at 703.803.2119. Please direct questions concerning the process to Sonja via email at **sonjaheritage@vatf1.org.** Closing for the application process will be 1 November 2002, with no applications accepted after that date. Once accepted, candidates will be supplied logistics (including directions and lodging information) instruction.

Planning includes participant attendance of a mandatory orientation scheduled to begin promptly at 1900 hours on 22 November 2002 at the Department's Academy located at 4600 West Ox Road, Fairfax, Virginia 22030. The formal evaluation process will begin on 23 November, utilizing the Canine Readiness Evaluation Standard posted on the FEMA web page, as of 1 October 2002.

Thank you for your attention to this important matter. Please feel free to contact me if I can be of assistance to you.

Canine Search Specialist Course

Submitted by: Tim Gallagher, Texas Task Force -1

Texas task force one will be hosting a FEMA equivalent canine specialist course October 30 - November 3, 2002 in College Station Texas.

In addition to the FEMA US&R approved curriculum, this course will include a type II canine evaluation.

The cost for each student will be $500.00, including books, materials, and meals. Please submit payment to TEEX/USAR, 201 Tarrow Drive Room 138, Attn: Kay Adams, College Station, Texas 77840, or bring to the course. Please arrange for travel and lodging through your agency. Please notify us of the names of those attending and provide travel details by Friday, October 18, 2002.

If you have any questions, or wish to reply please do so to Bob McKee, (979) 458-4687 or Bob.McKee@teexmail.tamu.edu.

Grapes continued from page 1

Why did the fruit cause the dogs to become ill? No one knows. Suspect grapes and raisins have been screened for various pesticides, heavy metals (such as zinc or lead), and mycotoxins (fungal contaminants) and so far, all results have come back negative. In the cases where the grapes were grown in private yards, owners confirmed that no insecticides, fertilizers or antifungal had been used on the fruit.

"Raisin" the Success Rate

Even though the exact cause of the renal failure is unknown, dogs who ingest grapes and raisins can be treated successfully to prevent its development. The first line of defense is decontamination. Inducing vomiting in recent ingestions and administering activated charcoal helps prevent absorption of pot ential toxins. Dogs should be hospitalized and placed on intravenous fluids for a minimum of 48 hours. A veterinarian should monitor blood chemistry daily for at least three days following the ingestion. If all blood work is normal after three days, it's unlikely that kidney failure will occur. If a dog shows evidence of renal failure, fluids must be continued, and other medications should be used to stimulate urine production. Some dogs may need peritoneal dialysis, a precess where the peritoneum (the membranes surrounding the abdominal organs) is used to filter waste products that are normally filtered by the kidney.

Thanks in part to the AnTox database, grape or raisin ingestion can be easily identified and treated. Today, a dog can make a complete recovery from this potentially fatal condition.

Dr. Means is a veterinary toxicologist at the ASPA's Animal Poison Control Center in Urbana, Illinois.

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How Do I Submit Items for the Canine Bulletin?

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